



City of Geneva May 2019 - Status Report

SEASON PERSPECTIVE

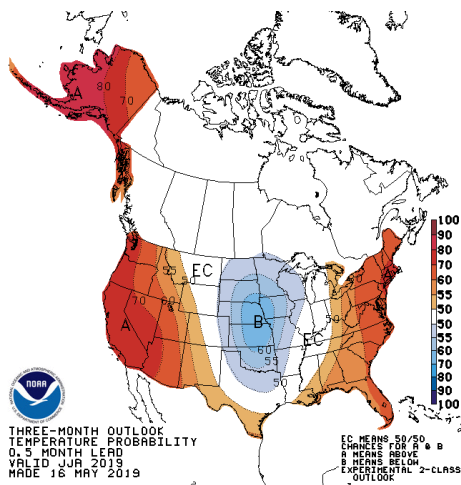
Introduction. Weather conditions critically affect the seasonal mosquito population. Excessive rainfall periods trigger hatches of floodwater mosquitoes (*Aedes vexans*), the dominant annoyance species in northern Illinois that has a flight range of 15 to 20 miles. The other target species is the northern house mosquito (*Culex pipiens*), the primary vector of West Nile virus (WNV) that flourishes under stagnant water and drought conditions.

May 2019 was the wettest month of May on record! Measureable rainfall was recorded on 21 of 31 days in May. A series of rains, totaling 8.25 inches at O’Hare International Airport, triggered twelve (12) floodwater mosquito (*Aedes vexans*) brood hatches to arrive between late May and mid-June. If temperatures reach near or above normal levels, excessive mosquito annoyance conditions can be anticipated in June.

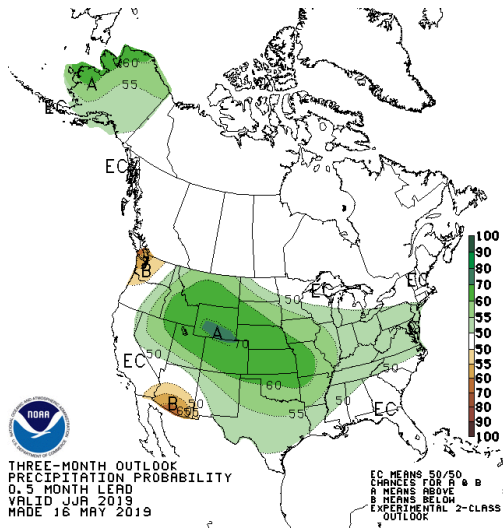
Clarke operations will focus on floodwater mosquito larval development habitats for the control of these early season hatches. Truck ULV adulticide applications could be recommended, as warranted by surveillance data, to suppress the adult mosquito population.

In addition, the National Weather Service temperature and precipitation maps provide the following outlooks for the United States, with the following prediction for Illinois:

- **Illinois – June – July - August 2019:** Normal temperatures and slightly above normal precipitation



90-Day National Weather Service Precipitation Outlook for June-July-August



90-Day National Weather Service Temperature Outlook for June-July-August

Floodwater Mosquito Brood Prediction

The floodwater mosquito (*Aedes vexans*) is the key nuisance species in the Chicagoland area. Distinct hatches of floodwater mosquito populations, or broods, are triggered by significant rainfall events. The Clarke Brood Prediction Model calculates peak annoyance periods based on rainfall and temperature data collected from weather stations in your area.

Weather Station Name	Rainfall Date	Rain Amount	Brood Prediction Date
Elgin	04/22/2019	0.40	05/20/2019
Elgin	04/27/2019	0.55	05/25/2019
Elgin	04/28/2019	0.98	05/26/2019
Elgin	04/29/2019	0.85	05/26/2019
Elgin	04/30/2019	1.13	05/26/2019
Elgin	05/02/2019	0.96	05/27/2019
Elgin	05/06/2019	0.52	05/29/2019
Elgin	05/08/2019	2.25	05/31/2019
Elgin	05/18/2019	0.45	06/01/2019
Elgin	05/21/2019	0.61	06/04/2019
Elgin	05/22/2019	0.59	06/05/2019
Elgin	05/27/2019	0.40	06/10/2019
Elgin	05/28/2019	0.70	06/11/2019



MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

2018 – USA. In 2018, there were 2,544 human cases of WNV across the United States reported by the Centers for Disease Control & Prevention (CDC). The following are the top ten states that recorded the most WNV cases in 2018 in descending order: NE-CA-ND-IL-SD-TX-PA-IA-MI and CO. These 10 states accounted for 61% of the 2018 human case count. In 2018, the State of Illinois recorded 174 human WNV cases, including 16 fatalities, compared to a 2017 case count of 90, including 8 fatalities.

2019 - USA. The first WNV human cases in the United States have been reported in Las Vegas, NV and Dallas County, TX. As the season progresses, the Centers for Disease Control & Prevention website will provide the current status of WNV activity across the United States. <https://www.cdc.gov/westnile/index.html>

2019 – ILLINOIS. On May 24th, the DuPage County Health Department and Illinois Department of Public Health (IDPH) announced the first mosquitoes to test positive for West Nile virus in Illinois for 2019 in the Village of Wayne. On May 28th, the North Shore Mosquito Abatement District announced their first positive mosquitoes on May 28th Evanston, Glencoe, Glenview, Northbrook and Winnetka. No human cases of West Nile virus have been reported so far this year.

While the risk of being infected with West Nile virus is low at this time of year, citizens should take personal protection measures to minimize mosquito bites including: using insect repellent, wearing loose fitting clothing and avoiding peak mosquito feeding times during the hours around dawn and dusk. Citizens are urged to examine their property and eliminate any items that can hold water, particularly smaller items that may be easily overlooked.

County	American Crow	Blue Jay	Other Birds	Mosquito Batches	Horse	Other Mammals
COOK	0	0	0	5	0	0
DUPAGE	0	0	0	1	0	0
WILL	0	0	0	1	0	0
TOTAL	0	0	0	7	0	0



Zika virus (ZIKV)

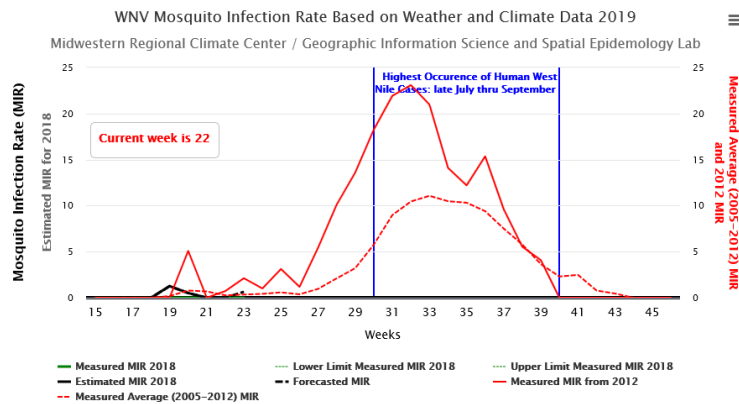
Zika virus (ZIKV) is a mosquito-borne disease that is transmitted primarily by the *Aedes aegypti* mosquito and sexual transmission. *Aedes aegypti* is a tropical mosquito that does not occur in northern Illinois. While ZIKV symptoms are generally mild in adults (fever, rash, joint pain and conjunctivitis), pregnant women who contract ZIKV can pass the virus to their unborn children, increasing the risks of serious birth defects like microcephaly. In 2016, the continental United States endured a major ZIKV outbreak with more than 5,100 travel-related nationwide and 139 locally transmitted cases in areas of south Florida. In 2017, the ZIKV human case count was dramatically diminished in the continental United States with the CDC reporting 407 cases.

In 2018, the human case count further declined to the following breakdown:

- 64 – travelers returning from affected areas
- 0 – cases acquired through presumed local mosquito-borne transmission
- 0 – cases acquired through sexual transmission

The ZIKV case count also declined in South America, the Caribbean, and American territories.

Midwest Regional Climatic Center (MRCC) WNV Prediction Model – Week 22 – 5/31/19





New Jersey Light Trap Counts

(*Red numbers indicate an annoyance level)

Trap Location	May 13	May 15	May 17	May 20	May 22	May 24	May 27	May 29	May 31
37W681 Kaneville Rd	0	5	5	10	5	33	21	30	33
Eastside Dr Fire Station	0	0	0	0	0	3	2	4	3
Westhaven & Heartland well site	0	1	4	0	2	24	9	6	15
Wheeler Dr & Stevens St	0	3	26	6	2	50	30	53	43

*Mal - trap malfunction

Services Performed May 2019:

Service Item	Start Date
ROS0952 - N.J. Light Trap Seasonal Serv	05/03/2019
ROS1999 - Natular G 5#/Acre Hand	05/23/2019
ROS1302 - Targeted Site Larval Insp Serv	05/23/2019

Upcoming June 2019 Operations

Work Type	Number of Treatments
Complete Site Inspection	1